

Date: Fri, 18 Jun 93 04:30:15 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #746
To: Info-Hams

Info-Hams Digest Fri, 18 Jun 93 Volume 93 : Issue 746

Today's Topics:

 6m rigs (was Entry Level HF Rigs)
 Are we losing our technical abilities? (2 msgs)
 Blue Language Repeaters
 HTX-202 146.76 birdie, was "Re: HTX-202 mods"
 SPICE Model for Multi-Layer PCB Traces

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Fri, 18 Jun 1993 08:13:56 GMT
From: pipex!uknet!mcsun!sun4nl!dutrui!dutiws!dejongh@uunet.uu.net
Subject: 6m rigs (was Entry Level HF Rigs)
To: info-hams@ucsd.edu

In article <9306171702.AA05630@opus.xyplex.com> sasminkey@eng.xyplex.com writes:
>Mike Ellerson (mellerso@uga.cc.uga.edu) wrote:
>> Is it worth paying extra for 6M on the Icom 729 and
>> Kenwood TS690 ? Do any of these units have a better receiver section than
>
>to which Jim Kurdzo N1KKA replied:
>
>>I have had an ICOM 729 for several months now. The main reason I bought
>>the rig was to get 6m. If you will ever consider getting into 6m,
>>get one of these rigs. For about an extra \$250, you get a superb
>>all mode 6m capability. The Kenwood has a few more bells and whistles
>>and gives you 50W on 6m (rather than 10W with the 729). I use a 10-in/
>>100-out linear with the ICOM. The rig has performed flawlessly for me!

>
>Welcome to 6m, Jim! When I get things put back together after the big
>contest last weekend, I'll be looking for you. I'm in FN42 so it should
>be pretty easy to work you. I may have worked you last weekend from W1TKZ
>on Mt Equinox in FN33...
>
>I'm very glad that Icom makes the 729, because I'm hoping that its 6m
>capability for only \$250 extra will encourage more 6m activity. But, my
>advice is that if you've got the money, get the Icom 575A or 575H instead.
>I've read one comment on the net that the 729's receiver on 6m isn't that
>good and that would be my suspicion too. The 575A is 10 watts, and the 575H
>is 100 watts. (AES is running a special on the A in their latest catalog.)
>The 575 is a separate 6m all mode rig with a truly excellent receiver. W1TKZ
>has used a Kenwood TS600 on Mt. Equinox for several years and all kinds of
>stuff got into the receiver. We used an Icom 575H this year and nothing,
>and I mean nothing, outside of the 6m band got into that receiver! This
>is the first time I've seen a 575 put through the paces in a demanding
>environment and it worked great. We worked incredibly weak stations,
>could hear stations 10 kHz away from W2SZ/1 for a change :-), and nothing
>got through the front end even with the built-in preamp on.
>
>Also, for people thinking about 6m, don't forget used equipment like a Yaesu
>FT620B or Kenwood TS600. I've seen them for around \$200 at flea markets.
>They're great 6m rigs for getting started and always good to pass down to
>another newcomer if you get serious later...
>
>Just my opinion, and I don't have anything to do with Icom or dealers...
>
>Scott W01G
>=====
>

Thanks Scott, for advocating 50 MHz! Unfortunately the new Kenwood TS50
hasn't 50 MHz. When there's a version with additional 6m.... yummie.

By the way, does anyone have an IC-502 on the shelf (may be dusty and rusty).

/Remco (PA3FYM, besten@chem.ruu.nl)

Date: 17 Jun 1993 12:29:18 -0700
From: techbook.com!techbook.com!not-for-mail@uunet.uu.net
Subject: Are we losing our technical abilities?
To: info-hams@ucsd.edu

Tracy N. Tipping (tipping@phys.ksu.edu) wrote:
: In article <1vllka\$d98@morrow.stanford.edu>

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: BR.SJE@forsythe.stanford.edu (Steve Eastman) writes:
: >In article <1vli8k$756@techbook.techbook.com>,
: >genew@techbook.techbook.com (Gene Wolford) writes:
: >>
: >>-----
: >>Smoky the ham says:
: >>                Only you
: >>                ^^^
: >>                can prevent ham radio becoming the next Citizens Band.
: >
: >Techno-nurd the ham says:
: >                Only you
: >                ^^^
: >                can prevent ham radio becoming the next sub-atomic particle physics
: >                of quark spin in zero gravity on a Tuesday afternoon
: >                in the shade
: >
: >

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: I think these two people are taking extreme views.  I fall somewhere in
: between as probably does most every other ham.  I am an atomic
: physicist, but I typically don't do atomic physics while on the radio.
: My main interest in amateur radio is emergency communications.  I am
: currently using a license study guide to "cram" for an exam (I'm
: testing for element 4B tonight).  If I'm going to do the "technology"
: thing, I'm going to need a stack of reference books, a computer, a
: couple of colleagues, and a lot of telephone calls.  So far, I haven't
: been to an exam session where the VEs would let me use that stuff.
: The people that are going to do "technology," will continue to do
: "technology."  I feel that we are not losing "technology," we are
: gaining expertise in other areas (digital communications modes, etc.).

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: Just my opinion...

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: Tracy

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My concern is that the ham fraternity will become a group of communications people who USE communications equipment rather than a group which is also
 ^^^
 able to use their abilities to keep equipment on the air by whatever means necessary during an emergency.

Any paper-shuffling deadbeat yuppie can USE a cellular phone for emergency
 ^^^
 communications, while being barely competent to change its batteries!
 Or the Gov. could always give the CB folks some nice 14mhz bandwidth to do international emergency communications.

Breaker 20meters, there Good Buddy! Hows about a radio check...

If that is good enough, why should the FCC bother setting priceless frequencies aside for the amateur bands?

Why not let UPS buy all they want?

If we don't offer something special, how to do we justify our existance?

I hope my concern is groundless.

We will see.

73's

Gene

--

Those who beat their swords into plowshares
are destined to plow for those who don't.
genew@techbook.COM

Please direct flames to: genew@ucant.gethere.frmhere

Date: 18 Jun 1993 06:38 EDT

From: usc!howland.reston.ans.net!ux1.cso.uiuc.edu!uchinews!cs.umd.edu!

skates.gsfc.nasa.gov!nssdca.gsfc.nasa.gov!stocker@network.UCSD.EDU

Subject: Are we losing our technical abilities?

To: info-hams@ucsd.edu

>

[stuff deleted]

>My concern is that the ham fraternity will become a group of communications

>people who USE communications equipment rather than a group which is also

> ^^^

>able to use their abilities to keep equipment on the air by whatever means

>necessary during an emergency.

>

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>communications, while being barely competent to change its batteries!

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>international emergency communications.

>

>Breaker 20meters, there Good Buddy! Hows about a radio check...

[stuff deleted]>

>73's

>Gene

>--

It has never been the case in ham radio at least since commercial or other equipment sources have been available that everyone in the ham community has been an experimenter or radio builder. It intrigues me that so many people on this group feel that their view of ham radio is the only correct one and that ham is going to "heck in a handbasket" because things are changing.

We have always had a lot of divergence in the things that interest us and we will continue to have it. There are a lot of people (certainly greater in number than earlier in ham history although I don't know if greater per capita) that still build their own stuff. In the above 50Mhz range there is a lot of building and experimenting going on. Below that is a pretty sterile zone for the building activity for radios (given the really good commercial stuff available at fair prices). However, there is still a lot of building of power supplies, amplifiers, transverters, and, of course, antennas.

I have little worry about ham radio's future in terms of the many things we are doing and will continue to do plus, of course, all the new stuff that we don't know yet we will be doing. My greatest fear for ham radio has to do with a community that always seems to be tearing at itself, has become increasingly arrogant, increasingly intolerant, increasingly malicious, and appears to have more and more people saying that they are the messiahs of the hobby and if only the unwashed masses follow them we can keep it pure and safe for the really good people.

Lets just enjoy what we want in the hobby and not try to force other people to accept our views. Just because our personal vision of the hobby is not universal doesn't mean the hobby is dying. Just because the hobby is changing doesn't mean it is being diminished.

Erich
N3OXM

Date: Fri, 18 Jun 1993 09:39:51 GMT
From: usc!math.ohio-state.edu!sdd.hp.com!apollo.hp.com!hpwin052!hpqmoea!
dstock@network.UCSD.EDU
Subject: Blue Language Repeaters
To: info-hams@ucsd.edu

Bruce Martin (martinbw@jackatak.raider.net) wrote:

: The first time I heard a conversation on 75
: meters I was appalled. I could not believe the language I was hearing.

: While I do have a volume knob and an on/off switch; it was too late, I
: already heard the conversation. Now I can't say that I heard words that I
: have never heard before but to hear hams using that kind of language on
: the air was a great surprise and I can only hope these guys are in the
: minority and someone is out there to gently remind them that this is not
: proper ham operation and if that doesn't take hold more drastic action be
: taken.

: I step down from the soapbox,

: 73

: Bruce

Bruce, "Bad" language serves well to mark out two sorts of people,
those who are incapable of (or just too lazy) expressing themselves
effectively, and those who just rant away pouring out hatred.

I suspect I'm not alone in having acclimatised to all the usual bad
words, and merely get the impression that whoever is blasting away is
not thinking and so their arguments are likely not worth listening to
so I just "turn off" and never hear whatever they are trying to say.

It's a valuable vent, after breaking something, to just mutter " Oh
bugger" to yourself, but attempts to beef up attempts to influence
the thinking of others seem to be counterproductive.

I don't think there is such a thing as offensive language, I find
some people offensive instead.

To insult someone successfully requires wit and intelligence (and an
audience). To argue an opinion requires wit and intelligence. Some
people don't have wit or intelligence, and it shows !

Laugh at 'em

David GM4ZNX

: *****
: * Bruce W. Martin Internet: martinbw@jackatak.raider.net *
: * 4558 Brooke Valley Dr. AOL: Dragon16 *
: * Hermitage TN 37076-2650 HAM Call: KQ4TV *
: * Voice: (615) 872-9942 Work: (615) 244-2022 *
: * FAX/MODEM: (615) 885-4182 *
: *****

Date: Thu, 17 Jun 93 21:29:37 GMT
From: elroy.jpl.nasa.gov!usc!howland.reston.ans.net!torn!nott!cunews!revcan!
balsam!cowan@ames.arpa
Subject: HTX-202 146.76 birdie, was "Re: HTX-202 mods"
To: info-hams@ucsd.edu

wejones@cbda7.apgea.army.mil (Bill Jones) writes:

```
> >
> > > : > >|> > PS: Is it normal for the 202 to have a birde on 146.760?? Mayb
> > > : > >|> > is common?? cul
> > > : >
> > > : > >|> I don't know about normal, but mine does it too. So does a frien
> > > : > >|> is not picking up an external signal. BTW, it only is observed w
> > > : > >|> rubber ducky is used, ie when an external antenna is used, it goe
> > > : > >|> so it seems to be an oscillation involving reactive components in
> > > : > >|> rubber ducky!
> > > : >
> > > : > It's probably picking up some outside noise (like from a computer) an
> > > : > mixing with internal noise or oscillators to produce the birdie on 14
> > > : >
> > > This problem was explained in a previous posting by Don Montgomery.
> > > The birdie on 146.76 MHz is the 41st harmonic of the 3579.545 MHz clock
> > > oscillator used in the HTX202. It radiates mainly out of the keypad
> > > on the front of the radio.
> > >
> > More data:
> > Antenna I used was not roof-top, but only 5' away, although this is
> > farther than the rubber duck.
> > While the clock harmonic is a nice theory, it has some problems.
> > At the very least, it is not the whole story. The reason is:
> > I used a scanner to monitor the signal coming from the keypad, and when
> > the htx-202 is tuned to 146.76, the signal is at 146.76, but if you change
> > ...
> Still more data, partial retraction or now I'm really confused?
> ...
```

Have you considered that it may be something else? My HTX202 doesn't have a birdie at any frequency that I've noticed so far...

--

Darin Cowan - cowan@balsam.pinetree.org | I just try to make people's
VE3 OIJ | lives a little more surreal

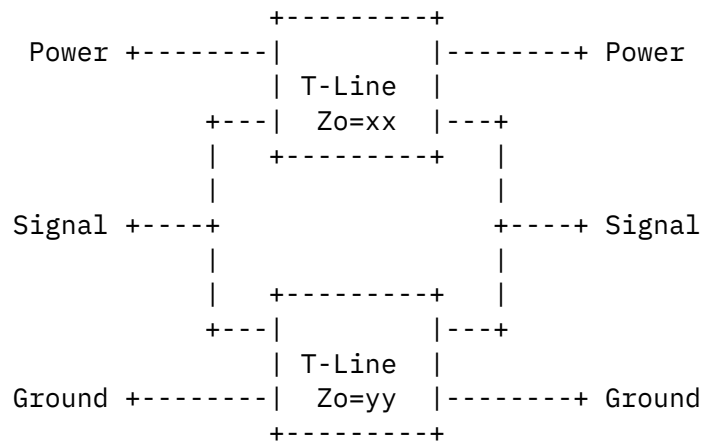
Date: Thu, 17 Jun 1993 14:50:16 GMT
 From: sdd.hp.com!math.ohio-state.edu!howland.reston.ans.net!sol.ctr.columbia.edu!
 caen!rphroy!kocrsv01!c2xjcb@network.UCSD.EDU
 Subject: SPICE Model for Multi-Layer PCB Traces
 To: info-hams@ucsd.edu

I am looking for information regarding how to model a Printed Circuit Board (PCB) signal trace on a multi-layer PCB with power/ground planes. Common literature provides Z_0 and t_d equations for stripline (trace surrounded by two ground layers above/below) and micro-stripline (trace floating above single ground-plane), but not for the case where the trace is either 1) sandwiched between power AND ground planes or 2) above/below a power/ground-plane pair.

Specifically, I am interested in the following topologies:

Layer 1	Power Plane	or	Signal layer
2	Signal layer		Ground Plane
3	Ground Plane		Power Plane
4			

My current strategy is to treat the signal-to-ground as a micro-stripline with the Z_0 determined by their geometries (i.e. trace width, plane-to-plane spacing, etc.) and the signal-to-power as another micro-stripline; the Spice model would then be a subcircuit consisting of two "Transmission Lines" (4-port devices) connected with the "signal" going to/coming from both T-lines, power going to 1 T-line, and ground going to the other T-line, such as:



Also, does anyone have a good idea about modeling the Zo discontinuity of via-holes, particularly, as the signal trace passes from 1 layer (say the top side of the PCB) to another (say the bottom) thru the power/ground planes (say in the middle)?

Any words of wisdom would be greatly appreciated.

--

James C. Bach
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End of Info-Hams Digest V93 #746
